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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,524	12/21/2001	Gerhard Henneberger	1193A	5934

7590

07/15/2003

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EXAMINER

GONZALEZ, JULIO C

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 07/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/029,524	HENNEBERGER, GERHARD	
	Examiner	Art Unit	
	Julio C. Gonzalez	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/582,333.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the voltage regulator disclosed in claim 9 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: in figure 1, reference 13. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The claims disclosed that the windings are connected for a predetermined time, however, the claims are not specific as to how long this “time” is or how the windings are able to be connected for a specific amount of time.

Also, in claim 3, the specifications are not clear enough as to how the present invention would be able to be turn on for a “longest on-time duration”. The specifications only mention that the present invention is able to do that (page 6), but provides no means or an explanation as to how such task can be accomplished. Also, once the device is turn on (claim 3), how is the device turn off? How are the windings selected? Also, the disclosure provides no explanation as to how the voltage regulator would provide an additional control of the current as disclosed in claim 9.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, what is meant by disclosing that the charging current charges an inductance of the generator?

In claim 2, how are the windings selected? What is being kept to a predetermined minimum size, the current pulses or the time?

In claim 3, what is considered a “turn on time”? Longest on time duration?

In claims 5-8, what is the measuring instrument? Is it a sensor? Current detector?

Is the device going to be placed at different locations in order to measure the current? Or is it just one measuring device 24 able to detect the current of the switch, the output current of the generator and the windings? Then how?

In order to advance prosecution in the merits, the Prior Art will be applied as best understood by the examiner.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 3, 4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimane in view of Tanaka et al.

Shimane et al discloses a generator 104 comprising a converter bridge with triggerable switch elements 127-132 (see figures 5, 6), energy drawn from a battery 102, a logistic element 237 being used in the circuit and a comparator 231 (see figure 8). Also, the additional current is regulated by means of a voltage regulator 122. Moreover, Shimane et al teaches that an exciter 31 can excite the windings of the generator 39 and a voltage regulator 33 may provide additional control (see figure 3) and that the switch elements may be connected/disconnected (column 12, lines 4-8; column 13, lines 61-68; column 14, lines 41-68).

However, Shimane et al does not disclose a capacitor being used in the invention.

On the other hand, Tanaka et al discloses a capacitor 10 being used in the circuit for the purpose of simplifying the circuit configuration and ensuring a more stable operation of an electrical machine (see figure 1).

Moreover, Tanaka et al teaches that switches may be turn on/off depending on a current charge (see abstract).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design a generator controller with a converter bridge as disclosed by Shimane et al and to include a capacitor for the purpose of simplifying the circuit configuration and ensuring a more stable operation of an electrical machine as disclosed by Tanaka et al.

9. Claims 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimane et al and Tanaka et al as applied to claim 1 above, and further in view of Kohl et al.

The combined controller for a generator discloses all of the elements above. However, the combined controller does not disclose explicitly that current may be measured in one of the switch elements.

On the other hand, Kohl et al discloses for the purpose of reducing costs related to voltage regulators that current may be measured from one of the switch elements (column 2, lines 48-55; claim 5).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the combined generator controller as disclosed

above and to modify the invention by measuring the current of a switch for the purpose of reducing costs related to voltage regulators as disclosed by Kohl et al.

10. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimane et al and Tanaka et al as applied to claim 4 above, and further in view of Chambers.

The combined controller for a generator discloses all of the elements above. However, the combined controller does not disclose explicitly that current may be measured in the windings.

On the other hand, Chambers discloses for the purpose of effectively measuring the reactive current of electrical machines and preventing excessive underexcitation of the field windings that the current of the output generator and windings may be measured (see abstract; claims 1(d), 5(c)).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the combined generator controller as disclosed above and to modify the invention by measuring the current of windings for the purpose of effectively measuring the reactive current of electrical machines and preventing excessive underexcitation of the field windings as disclosed by Chambers.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julio C. Gonzalez whose telephone number is (703) 305-1563. The examiner can normally be reached on M-F (8AM-5PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Jcg

July 9, 2003

KARL TAMAI
PRIMARY EXAMINER

